

CLAIMS

- 5 1. A Group B Streptococcus polypeptide or protein having a sequence selected from those described in fig 1, or fragments or derivatives thereof.
- 10 2. Derivatives or variants of the proteins, polypeptides, and peptides as claimed in claim 1 which show at least 50% identity to those proteins, polypeptides and peptides claimed in claim 1.
3. A Group B Streptococcus polypeptide or protein, or derivative or variant thereof, as claimed in claim 1 or claim 2 , which is isolated or recombinant.
- 15 4. A nucleic molecule comprising or consisting of a sequence which is:
- (i) any of the DNA sequences set out in figure 1 herein or their RNA equivalents;
- (ii) a sequence which is complementary to any of the sequences of (i);
- 20 (iii) a sequence which codes for the same protein or polypeptide, as those sequences of (i) or (ii);
- (iv) a sequence which shows substantial identity with any of those of (i), (ii) and (iii); or
- (v) a sequence which codes for a derivative, or fragment of a nucleic acid molecule shown in figure 1.
- 25 5. A vector comprising one or nucleic acid molecules as defined in claim 4.
6. A vector as claimed in claim 4 further comprising nucleic acid encoding any one or more of the following: promoters, enhancers, signal sequences, leader

sequences, translation start and stop signals, DNA stability controlling regions, or a fusion partner.

5        7.        The use of a vector as claimed in claim 5 or claim 6 in the transformation or transfection of a prokaryotic or eukaryotic host.

8.        A host cell transformed with a vector as defined in claim 5 or claim 6..

10       9.        A process for producing a Group B Streptococcus polypeptide or protein, or derivative or variant thereof, as claimed in claim 1 or claim 2, the process comprising expressing the polypeptide or protein in a host cell as claimed in claim 8.

15       10.       An antibody, an affibody, or a derivative thereof which binds to one or more of the proteins, polypeptides, peptides, fragments or derivatives thereof, as defined in any one of claims 1 to 3.

20       11.       An immunogenic composition comprising one or more of the proteins, polypeptides, peptides, fragments or derivatives thereof as defined in any one of claims 1 to 3.

12.       An immunogenic composition as claimed in claim 11 wherein the proteins, polypeptides, peptides, or fragments or derivatives thereof include ID-65 or ID-83, ID-89, ID-93 or ID-96.

25       13.       An immunogenic composition as claimed in claim 11 or claim 12 which is a vaccine.

30       14.       An immunogenic composition comprising one or more of the nucleic acid sequences as defined in claim 4.

15. An immunogenic composition as claimed in claim 14 wherein the nucleic acid sequences include ID-65 or ID-66.
- 5 16. An immunogenic composition as claimed in claim 14 or claim 15 which is a vaccine.
- 10 17. Use of an immunogenic composition as defined in any one of claims 11 to 16 in the preparation of a medicament for the treatment or prophylaxis of Group B Streptococcus infection.
- 15 18. A method of detection of Group B Streptococcus which comprises the step of bringing into contact a sample to be tested with at least one antibody, affibody, or a derivative thereof, as defined in claim 10.
- 20 19. A method of detection of Group B Streptococcus which comprises the step of bringing into contact a sample to be tested with at least one protein, polypeptide, peptide, fragments or derivatives as defined in any one of claims 1 to 3.
- 25 20. A method of detection of Group B Streptococcus which comprises the step of bringing into contact a sample to be tested with at least one nucleic acid molecule as defined in claim 4.
21. A kit for the detection of Group B Streptococcus comprising at least one antibody, affibody, or derivatives thereof as defined in claim 10.
22. A kit for the detection of Group B Streptococcus comprising at least one Group B Streptococcus protein, polypeptide, peptide, fragment or derivative thereof as defined in any one of claims 1 to 3.

23. A kit for the detection of Group B Streptococcus comprising at least one nucleic acid molecule as defined in claim 4.
- 5 24. A method of determining whether a protein, polypeptide, peptide, fragment or derivative thereof as defined in any one of claims 1 to 3 represents a potential anti-microbial target which comprises inactivating said protein and determining whether Group B Streptococcus is still viable.